This listing will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently amended) A processor-implemented method of training a trainable data classifier, the method comprising:

determining an association coefficient of a first and second data vector;

forming a measure of difference using said association coefficient; and,

based on said measure of difference, performing at least one of: adding at least one of the first and second data vectors to a training set for the trainable data classifier, using at least one of the first and second data vectors to retrain the trainable data classifier, and discarding at least one vector from a training set.

2. (Previously presented) A method according to claim 1, where the association coefficient comprises a Jaccard's coefficient.

3. (Previously presented) A method according to claim 1, where the association coefficient comprises a paired absence measure.

4. (Previously presented) A method according to claim 1, further comprising determining a geometric difference between the first and second data vectors, and where the forming comprises combining said association coefficient and said geometric difference to form said measure of difference.

5. (Previously presented) A method according to claim 4, where the geometric difference comprises a Euclidean distance.

6. (Previously presented) A method according to claim 4, where the geometric difference comprises a geometric angle.

7. (Previously presented) A method according to claim 4, where the combining comprises combining the geometric difference and association coefficient in exponential relationship with each other.

8. (Previously presented) A method according to claim 7, where the combining comprises multiplying a function of the geometric difference by an exponent of a function of the association coefficient.

9. (Previously presented) A method according to claim 7, where the combining comprises multiplying a function of the association coefficient by an exponent of a function of the geometric difference.

10. (Previously presented) A method according to claim 1, where said trainable data classifier comprises a neural network.

11. (Previously presented) A method according to claim 1, where said first and second data vectors comprise telecommunications account fraud data.

12. (Currently amended) A processor-implemented method of retraining a trainable data classifier that has been trained using a plurality of data vectors including a first data vector, the method comprising:

providing a second data vector;

determining an association coefficient of the first and second data vectors;

forming a measure of conflict between said first and second data vectors using said association coefficient; and

using the second data vector to retrain the data classifier responsive to the measure of conflict.

13. (Previously presented) A method according to claim 11 wherein using the second data vector to retrain the data classifier is responsive to a predetermined conflict threshold value.

14. (Previously presented) A method according to claim 12 further comprising determining a geometric difference between the first and second data vectors, and wherein forming comprises combining said association coefficient and said geometric difference to form said measure of conflict.

15. (Currently amended) A processor-implemented method of operating a trainable data classifier, said trainable data classifier having been trained using a plurality of training data vectors, said plurality of training data vectors being associated with a plurality of reasons, the method comprising:

providing an input data vector;

generating an output responsive to the input data vector;

selecting one or more of said training data vectors;

for each selected training data vector: determining an association coefficient of said input data vector and said selected training data vector, and

forming a measure of difference between said input data vector and said selected training data vector from said association coefficient; and

using said measures of difference to associate at least one of said reasons with said output responsive to said measures of difference.

16. (Previously presented) A method according to claim 13, further comprising: presenting to a user information indicative of said output, of said at least one of said reasons, and of their association.

17. (Previously presented) A method according to claim 13, further comprising using said measures of difference to associate with at least one reason a degree of confidence with which said reason is associated with said input data vector.

18. (Previously presented) A method according to claim 15, further comprising determining a geometric difference between said input data vector and said selected training data vector, and where the forming comprises combining said association coefficient and said geometric difference to form said measure of difference.

19. (Currently amended) A processor-implemented method of training a trainable data classifier comprising:

providing a training data set comprising at least first and second data vectors;

determining an association coefficient of said first and second data vectors;

forming a measure of redundancy between said first and second data vectors from said association coefficient;

modifying said training data set responsive to said measure of redundancy; and

training said trainable data classifier using said modified training data set.

20. (Previously presented) A method according to claim 19, where forming a measure of redundancy is with reference to a predetermined redundancy threshold value.

21. (Previously presented) A method according to claim 19, further comprising discarding one of said first and second data vectors responsive to said measure of redundancy.

22. (Previously presented) A method according to claim 19, further comprising determining a geometric difference between said first and second data vectors, and wherein said step of forming comprises combining said association coefficient and said geometric difference to form said measure of redundancy.

23. (Currently amended) A data classifier system comprising:

a data classifier operable to provide an output responsive to either of first or second data vectors;

a data processing subsystem operable to determine an association coefficient of said first and second data vectors, to form a measure of difference between said vectors, and,

based on said measure of difference, ~~performing~~ the system operable to perform at least one of: adding at least one of the first and second data vectors to a training set for the trainable data classifier, using at least one of the first and second data vectors to retrain the trainable data classifier, and discarding at least one vector from a training set.

24. (Previously presented) A data classifier system according to claim 23, where the association coefficient comprises a Jaccard's coefficient.

25. (Previously presented) A data classifier system according to claim 23, where the association coefficient comprises a paired absences coefficient.

26. (Previously presented) A data classifier system according to claim 23, where the data processing subsystem is further operable to determine a geometric difference between said first and second data vectors, and to form said measure of difference by combining said association coefficient and said geometric difference.

27. (Previously presented) A data classifier system according to claim 26, where the geometric difference comprises a Euclidean distance.

28. (Previously presented) A data classifier system according to claim 26, where the geometric difference comprises a geometric angle.

29. (Previously presented) A data classifier system according to claim 26, where the data processing subsystem is operable to form said measure of difference by combining said association coefficient and said geometric difference in exponential relationship with each other.

30. (Previously presented) A data classifier system according to claim 29, where said data processing subsystem is operable to form said measure of difference by multiplying a function of the geometric difference by an exponent of a function of the association coefficient.

31. (Previously presented) A data classifier system according to claim 29, where said data processing subsystem is operable to form said measure of difference by multiplying a function of the association coefficient by an exponent of a function of the geometric difference.

32. (Previously presented) A data classifier system according to claim 23, where said data classifier comprises a neural network.

33. (Original) An anomaly detection system comprising a data classifier system according to claim 23.

34. (Original) An account fraud detection system comprising a data classifier system according to claim 23.

35. (Original) A telecommunications account fraud detection system comprising a data classifier system according to claim 23.

36. (Original) A network intrusion detection system comprising a data classifier system according to claim 23.

37. (Currently amended) Machine ~~Computer software in a machine~~ readable medium containing software for providing at least a part of a data classifier system when executed on a computer system, the software operable to:

receive first and second data vectors;

determine an association coefficient of the first and second data vectors;

form a measure of difference between said first and second data vectors using said association coefficient; and,

based on said measure of difference, ~~performing~~ perform at least one of: adding at least one of the first and second data vectors to a training set for the trainable data classifier, using at least one of the first and second data vectors to retrain the trainable data classifier, and discarding at least one vector from a training set.

38. (Currently amended) The ~~Computer software in a~~ machine readable medium according to claim 37, further containing software operable to determine a geometric difference between said first and second data vectors, and to form a measure of difference by combining said association coefficient and said geometric difference.